

# The Business Case for Quality “A Work in Progress”

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Making New Jersey a Model for Best Practices in Health  
Care

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# Making the Business Case

- Assumption: resources are limited
- Case satisfied if investment results in economic benefit that accrues to original investor over time
  - Earlier returns on investment have more value than later returns

*Reference: Weeks & Bajian. Jt Comm J Qual & Safety  
2003;29:51-54*

# Business Case for Quality: The Dilemma

- Who makes the investment?

- Hospital
- Insurer
- Patient
- Society

- Who reaps the benefits?

- Patient
- Society
- Insurer
- Hospital

# Reducing Costs

- *Problem:* Need to improve the system of care to reduce costs to the hospital
- *Solution:* Consider
  - Implement methods to reduce variability
  - Standardize care – use standing orders
  - Avoid throwing FTEs at job – convert FTEs
  - Assure CEO-Administration and Medical Staff work together
    - Facilitates appropriate quality and utilization
    - Willing and able to improve

# Chronic Care Model



# Chronic Care Model

- *Problem:* Care of chronically ill patients is poorly coordinated resulting in higher morbidity, mortality, and cost.
  - Adoption of model depends on reimbursement method (i.e. a problem for per diem, per case, or fee-for-service)

# Chronic Care Model

- *Solution:* Apply Wagner model emphasizing all components
  - Self-management (e.g. RN patient education)
  - Decision-support (e.g. EBM, reminders)
  - Delivery system design (e.g. home visits, post-hospital phone checks)
  - Clinical information system (e.g. patient registries, CPOE)

# Chronic Care Model

- *Solution:* Examples of controlled studies
  - CHF: 56% reduction in readmissions, improved quality of life scores. Cost of care down by \$460 over 3 months vs. controls
  - Asthma: fewer ER visits with \$543/patient net decrease in cost



# Chronic Care Model

- *Solution:* Examples of controlled studies
    - Diabetes: reduced hospital and ER use for  $\text{HgbA1c} \geq 10\%$
  - To be done: Reward providers with superior performance; pay for non-MD providers; help with chronic care start up costs (e.g. information system)
- \*Reference: Bodenheimer et al. JAMA 2002;288:1909-14*

# End of Life Care

- *Problem:* “Too many Americans die badly”  
See IOM’s Approaching Death: Improving Care at End of Life and SUPPORT project.  
Misaligned incentives – reimbursement vs. provider time >> excessively aggressive treatment in hospitals

# End of Life Care

- *Solution:* Coordinate care; facilitate communication between patients, families, and providers; enhance patient autonomy and sense of control; encourage advanced planning consistent with personal values

# End of Life Care

- *Solution:* Benefits =
  - increased patient and family satisfaction;
  - prevent or respond quickly to urgent problems;
  - decrease ER visits, hosp. admissions, LOS in hospital and ICU;
  - Overall savings in health care expenditures (e.g. # days in hosp in last month of life: 3.5 days for intervention vs. 8.2 days for control)

*\*Ref: <http://promotingexcellence.org/finance/>  
Presents examples from 6 projects*

# Higher 1<sup>st</sup> Day Costs

- *Problem:* Losing money on joint replacements
- *Solution:* Said “no” to current contract
  - **Translation** – we will charge them our charges
  - **Result** – received higher payment for 1<sup>st</sup> day which covered our hardware expenses incurred on the 1<sup>st</sup> day

# Per Diem versus Per Case

- *Problem:* Many managed care organizations (MCOs) have an aversion to per case rate payments
  - Concern that hospital might profit from case rate if they operated more efficiently
- *Solution:* requested and received an increase in per diem rates that covered costs in ICU, surgery, and other areas

# Physician Bonuses: Pay for Performance

- *Problem:* Providers are paid the same for good or bad care. Whether it is free from mistakes is irrelevant. -- “Perverse economics” reward high volume
- *Solution:* Pay provider bonus for quality and efficiency. 5%-10% bonus on total revenues may be enough to change behavior.

*\*Reference: J Carroll. Managed Care. January 2003;18-27.*

# Reputation

- *Problem:* taking a loss on MCO per diem patients when length of stay decreased.
  - Difficult to put a value on reputation and loss of confidence in a medical institution.
- *Solution:* reputation for high quality, multiple programs, sophisticated services help keep the beds full



# Calculating Business Case

- *Problem*: are we capturing all the elements
- *Solution*: more study required.

Collaboration between representative investors in health care and representative beneficiaries

# Severity Adjustment

- *Problem:* Would payment be more equitable and efficient if cases were severity-adjusted and payment was on a severity-adjusted case rate
  - Individual MCOs apparently do not have large enough databases to make determination
- *Solution:* Apply APR-DRGs or similar severity-adjustment system to Medicare database as a test

# Alignment of Incentives

- *Problem:* Medicare pays hospitals per case, internists per diem and surgeons per case. MCOs pay hospitals and doctors per diem except for carve outs
  - *Solution:* Do the math using large databases, then pay hospitals and all doctors with a case rate for inpatients to align incentives
- Ambulatory services are a separate issue

“Medicine used to be simple,  
ineffective and relatively safe.  
Now it is complex, effective and  
potentially dangerous.”

C. Chantler\*

\*Neale G. Reducing risks in the practice of  
hospital general medicine. In Clinical Risk  
Management. 2<sup>nd</sup> ed. 2001. BMJ

“The human mind cannot  
possibly remember all a doctor  
has to remember.”

*David Eddy*

“It’s the system stupid”

Adapted from various presidential  
advisors

# Medical Education Failing

- Physicians are taught that they are the only important decision makers
  - They need, instead, to function as part of a team of caregivers
- Physicians expected to know the right answers to all questions about clinical care and to perform work perfectly

# Health Care Delivery System Changes\*

- Abandon expectation that physicians, nurses, and other clinicians will perform perfectly
- Train them to function in a team setting
- Embrace clinical guidelines, but realize that they are only a beginning

\*Chassin Milbank Quarterly 1998;76:565-591



# Design for Safety

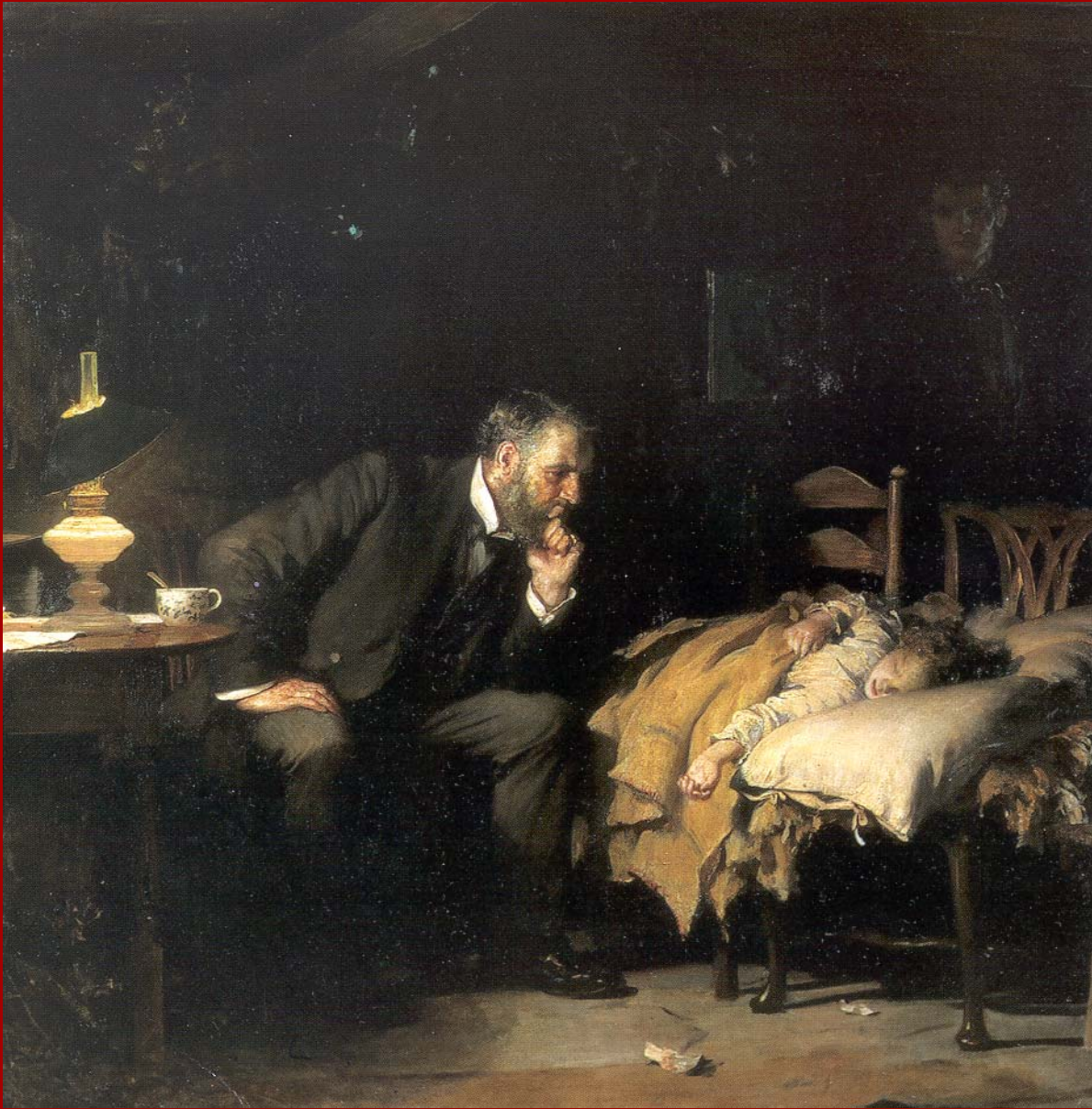
## It's Cheaper in the Long Run

- Design jobs to prevent errors
  - Avoid reliance on memory and vigilance
    - Computerized provider order entry (CPOE)
  - Simplify and standardize key processes using checklists and protocols
  - Focus on work hours, staffing ratios, training

\*Nolan BMJ 2000;320:771-3 & To Err is Human IOM 2000

# Simple Rules

- Old rules in old health care paradigm
  - physician is sole provider
  - physician's word is final
  - physician assesses success
- New rules in new paradigm
  - physician is part of interdisciplinary healthcare team
  - physician meets group-determined standards of care
  - physician and other providers get feedback and assess success





Captain Steubing and team

# IMPLEMENTATION STRATEGIES

- Generally ineffective
  - Passive education
    - Dissemination of guidelines
    - Publication of research findings
    - Grand rounds
  - Didactic education
    - Lectures
    - Grand Rounds - CME

# IMPLEMENTATION STRATEGIES

- Variably effective
  - Audit and feedback
    - Monitor individual physician performance, compare with peers, and feedback
  - Local opinion leaders
    - Peers considered educationally influential
  - Local consensus conferences
    - To adopt and adapt guidelines - bring together opinion leaders and those who object to change

# IMPLEMENTATION STRATEGIES

- Variably effective
  - Consumer education
    - Provide patients with information about appropriate health care interventions (N.B.: effect small)
    - Physician should involve patient in clinical decisions

# IMPLEMENTATION STRATEGIES

- Generally effective
  - Reminder to health care provider - use sparingly
  - Computer information systems
    - Program computer checks in H.I.S. to provide suggestions, warnings and reminders while ordering tests and drugs
  - Educational outreach
    - Academic detailing -- one-on-one dialogue between MD and expert helps with new drugs
    - Interactive educational interventions versus didactic -- one-way intervention



# IMPLEMENTATION STRATEGIES

- Generally effective
  - Barrier-oriented interventions - tailor intervention to barrier.
  - Multi-faceted interventions versus single intervention
  - Other health care providers -- nurse care managers, APNs (nurse practitioners), PAs and pharmacists

# Community-Acquired Pneumonia (CAP) P.I. Project

## 1. *Local consensus group developed specific proposal for change*

- First, we planned to improve compliance with HCFA-PRO CAP indicators

\*administer antibiotics within 8 hours, use recommended antibiotics, collect blood culture before antibiotics, screen for influenza and pneumococcal vaccine

- Second, we added plans to reduce LOS with help of APN Linda Aho, RN, MN.

## 2. *Select national guidelines*

- IDSA CAP guidelines >> J Ramirez' early switch and early discharge criteria

# Early Switch Guidelines

- **Criteria for switching from IV to oral antibiotics (early switch in first 3 days)**
  - Signs and symptoms of infection are improving: less cough, shortness of breath, sputum production
  - Patient is afebrile ( $\leq 100^{\circ}\text{F}$ ) for at least 8 hrs. (we chose 24 hrs)
  - WBC count is returning to normal

# Early Switch Guidelines (con't.)

- **Criteria for switching from IV to oral antibiotics**
  - **No evidence of abnormal gastrointestinal absorption**
    - taking food by mouth without diarrhea or weight loss
- **Early switch actually done in 67%**

# Early Discharge Guidelines

- **Criteria for hospital discharge on day following the switch candidate for oral therapy**
  - no need to treat comorbid conditions
  - no need for diagnostic workup
  - no social needs
- **Early discharge actually occurred in 44%**
  - \*Ramirez JA et al. Arch Intern Med 1999;159:2450

# Community-Acquired Pneumonia (CAP) P.I. Project

## 3. *System changes*

- Proposed APN Linda Aho, RN, MN talk to physicians to encourage compliance

## 4. *Getting buy-in*

- Plan presented to relevant stakeholders (i.e., infectious disease and pulmonary disease divisions and internal medicine, ER departments, and pharmacy committee). Plan supported by pulmonary and infectious diseases physician champions. Suggested one change in plan and plan modified. Discussed with efficient and inefficient physicians.

## 5. *Administrative support*

- Funded APN

# Community-Acquired Pneumonia (CAP) P.I. Project

## 6. *Education*

- Disseminated recommendations to every member of departments, gave Grand Rounds for MDs, RNs, PharmDs

## 7. *Implementation plan*

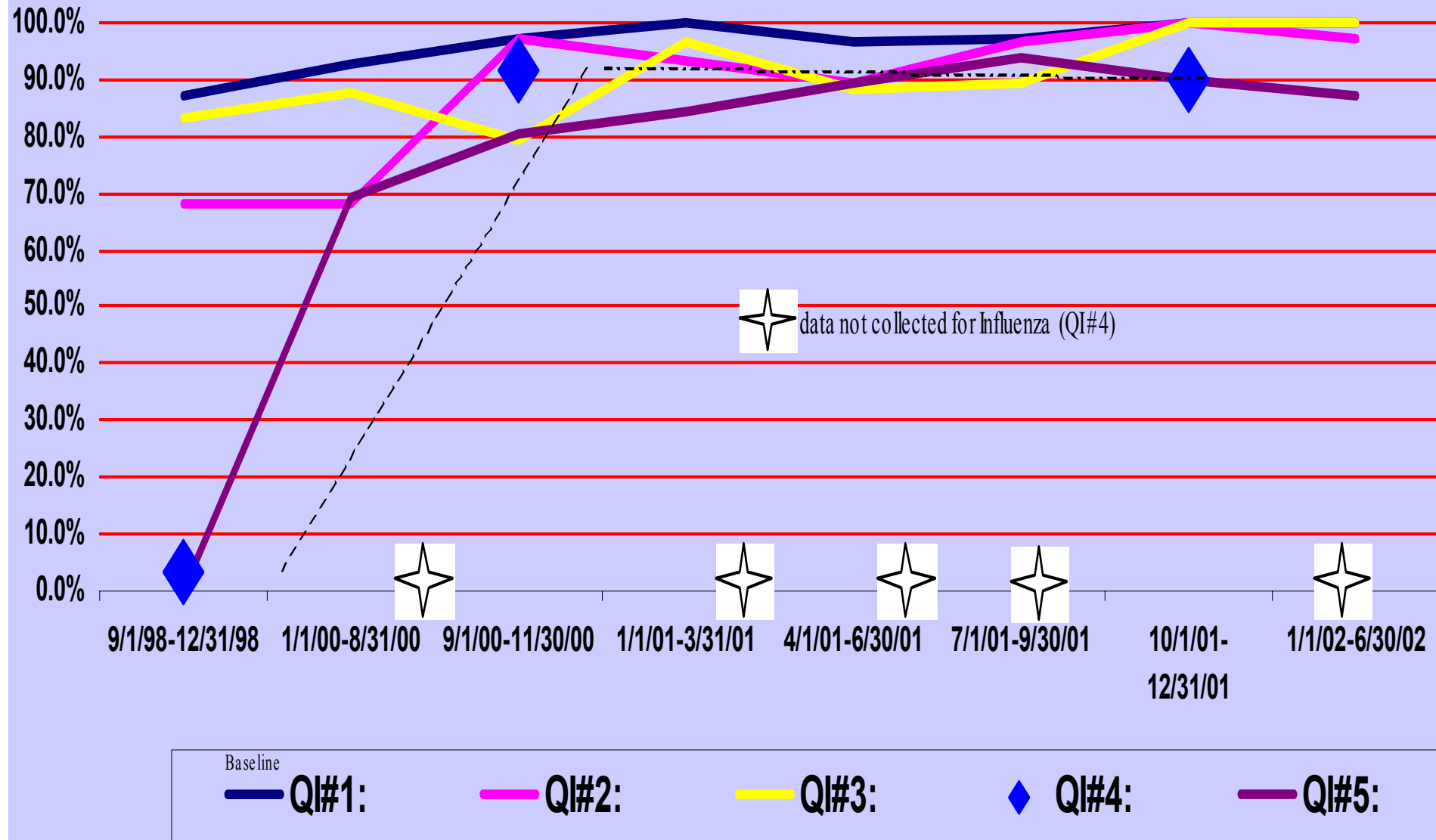
- Collected baseline data, then APNs started program.
- Later created CAP order sheet containing all CMS (HCFA-PRO) indicators

## 8. *Analysis of results*

- PRO indicator compliance improved from 0%-30%  
→ 80%-100%; reduced LOS by 1 day -- save approx. \$450,000; reduced cost/case by \$300 -- saved \$90,000

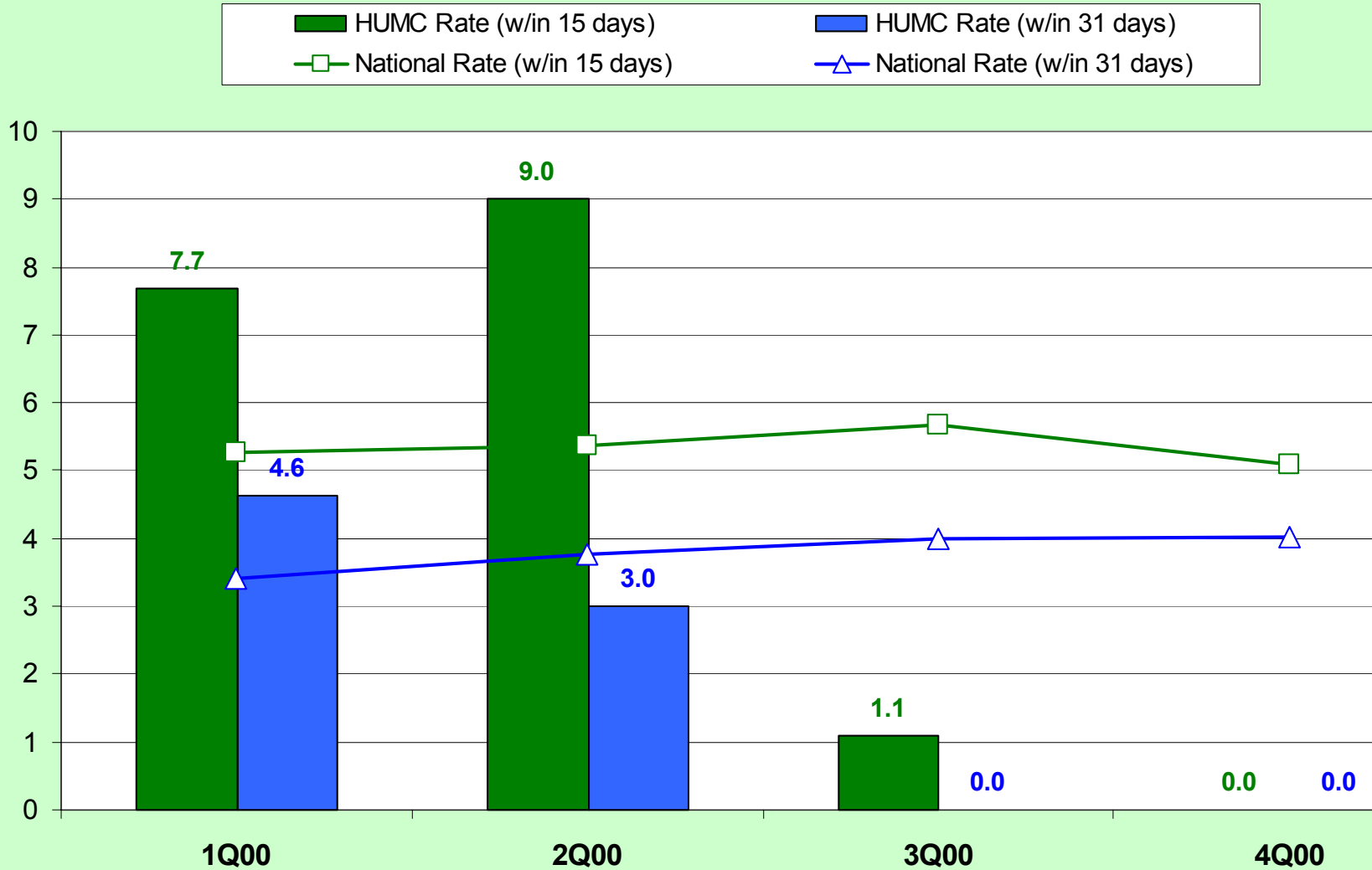
# PRO Pneumonia Indicators

## Baseline through June 30, 2002





**Unscheduled Readmissions after Discharge**  
**MHA ORYX Indicator - DRG 89, Simple Pneumonia**

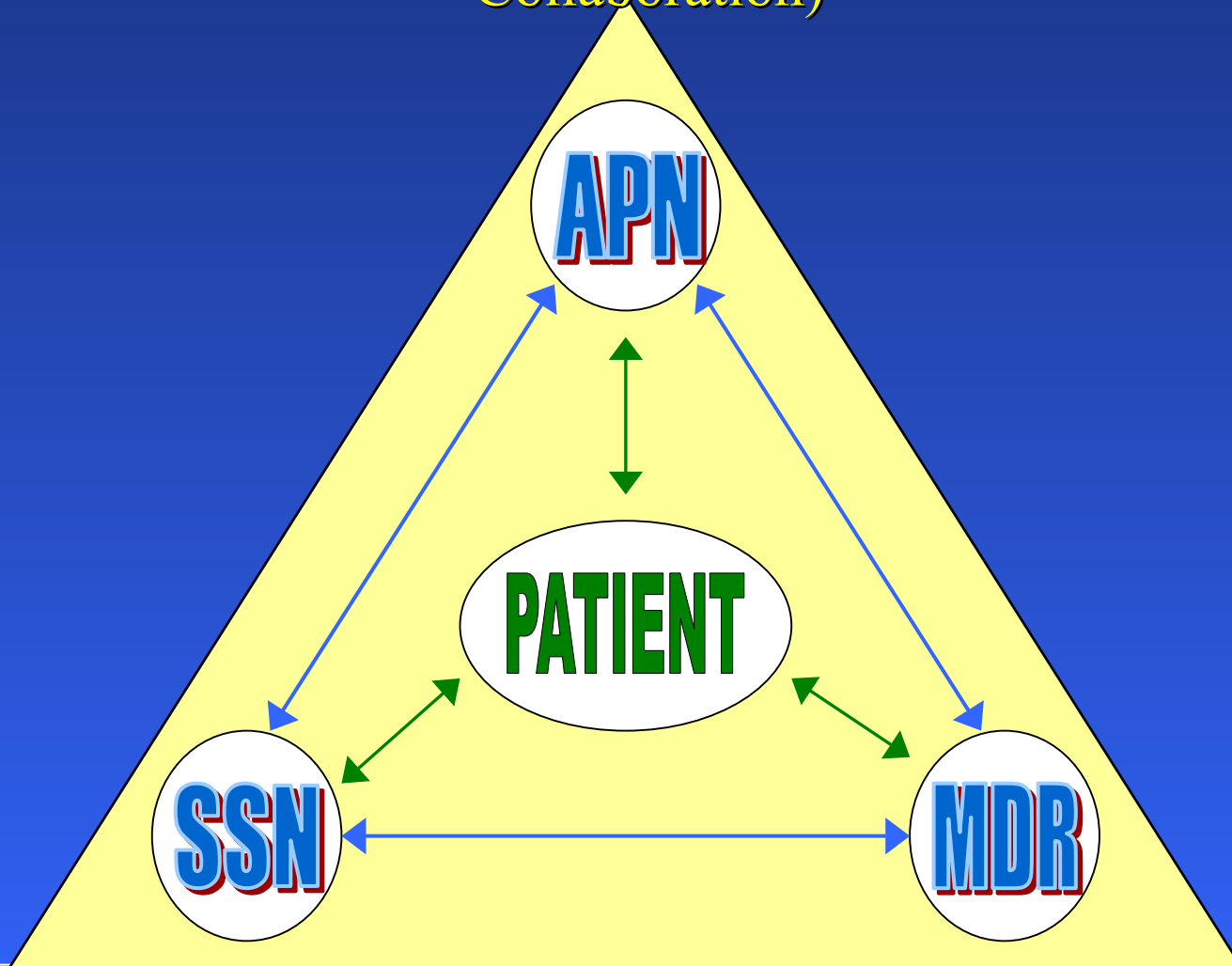




# *Hackensack University Medical Center*

## *Microsystem Model*

(Communication - Cooperation - Coordination - Collaboration)



# Advanced Practice Nurse Model

- Guidelines>>performance measures
  - consensus groups, local buy-in, MD champion
  - departmental approval
- APN or nurse specialist monitors and implements measures
  - Notes on chart, calls physicians, orders
  - Once successful, spreads responsibility to unit nurse managers and staff nurses, MDR and SSN models
- Add more measures or switch to new diseases

# Multidisciplinary Coordination of Care Rounds Model

- Needed system to “pick up the pieces” omitted by disease-specific measures
- Members: physician, patient’s staff nurse, APN, SSN, social service, discharge planning, nutrition, pharmacist
- Assure spread of Pursuing Perfection goals throughout the organization
- Assist with education, collaboration, and coordination of APN and SSN models

# Senior Staff Nurse Career Pathway Model

- Developed to create new career advancement program to retain experienced staff nurses at unit level
- Melded idea with Phase II Pursuing Perfection needs to enhance nursing education, help coordinate care, improve patient safety, and assure achievement of performance measures coordinated with APN and MDR model

# If the business case isn't made convincingly --

- Significant long term costs will borne by patients, providers, society, businesses, and hospital administrators
  - *For patients* – higher co-payments, lost income, increased disability rates
  - *For providers* – increased burden for care with fewer resources to pay for it, higher malpractice premiums
  - *For society* -- higher taxes

# If the business case isn't made convincingly --

- Significant long term costs will be borne by patients, providers, society, businesses, and hospital administrators
  - *For businesses* -- higher insurance premiums and lost productivity
  - *For hospital CEOs and boards* – held responsible for lack of quality

*Reference: Weeks & Bajian. Jt Comm J Qual & Safety 2003;29:51-54*

# Additional References

- *Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century*. Committee on Quality of Health care in America. Institute of Medicine. National Academy Press, Washington, DC, 2001.
- Gross PA, Greenfield S, Cretin S, Ferguson J, Grimshaw J, Grol R, et al. *Optimal Methods for Guideline Implementation: Conclusions From Leeds Castle Meeting*. Medical Care 2001;39(8)(Supplement 2):II-85-92
- Clinical Risk Management: Enhancing patient safety. Ed. C Vincent. 2<sup>nd</sup> edition. BMJ Books 2001



# Additional References

- <http://www.ihi.org> for quality improvement information and opportunities for participation using Calls to Action, Collaboratives, IMPACT, and Breakthrough Series College